

**DUAL INPUT AC and DC POWER SUPPLY HAVING A  
PROGRAMMABLE DC OUTPUT UTILIZING A SECONDARY BUCK  
CONVERTER**

**5 ABSTRACT**

A dual input AC/DC power converter (10) having dual inputs (12, 14) adapted to receive both an AC and DC input and provide a selectable DC voltage output (16) and a second DC output (18). The dual input AC/DC power converter (10) comprises a power converter circuit (20) having an AC-to-DC converter (22),  
10 a DC-to-DC booster converter (24), a feedback circuit (26), a filter circuit (25) and a DC-to-DC buck converter (28). Advantageously, the power converter (10) resolves many of system management problems associated with carrying all of the different interface components necessary to power a wide variety of mobile products from either an AC or DC power supply. In addition, the power converter  
15 (10) also advantageously includes dual output voltage terminals (16/18) to allow for multiple mobile devices of varying power requirements to be powered, simultaneously, by a single converter.